~~Abstract.~~ **ABSTRACT OF THE DISCLOSURE**

~~With a~~ A synthesis furnace ~~having~~ has a furnace chamber surrounded by a circumferential furnace wall, in which ~~a plurality of~~ burners are disposed essentially in one plane, with burner exit direction directed downward, and ~~a plurality of~~ reaction tubes are disposed essentially vertically and parallel to one another. The ~~are disposed, whereby the~~ reaction tubes are heated ~~from the outside,~~ externally by ~~means of~~ the ~~firing~~ ignited burners. To improve, the heat distribution and the entire heat transfer ~~are supposed to be improved~~ in as simple a manner as possible, in terms of design and control technology, at least the outer burners disposed in the vicinity of the furnace wall have a burner exit direction that runs at an incline away from the center of the furnace in relation to the vertical.

~~This is achieved in that at least the outer burners (5) disposed in the region of the furnace wall (2) have a burner exit direction (R) that is inclined relative to the vertical, leading away from the center of the furnace.~~

~~Drawing to be published with this: Fig. 1.~~